CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
Sacramento, California 95814

Main website: www.energy.ca.gov

Staff Workshop on Transportation Data Consultant Contract Opportunity Notice

The California Energy Commission (Energy Commission) staff will conduct a workshop to gather information in preparation of procurement services this fall. The purpose of the procurement is to hire a Transportation Data Consultant to develop a data management system to support the Energy Commission's transportation energy demand forecasting work. The public workshop will be held on:

JUNE 8, 2010
Beginning at 9:30 a.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Hearing Room B
Sacramento, California
(Wheelchair Accessible)

Remote Attendance and Availability of Documents

Internet Webcast - Presentations and audio from the meeting will be broadcast via our WebEx web meeting service. For details on how to participate via WebEx, please see the "Remote Attendance" section toward the end of this notice.

Purpose

At the workshop, the Energy Commission staff will provide an overview of the tasks to be funded and seek ideas, comments, and cost estimates from workshop participants. Information gathered at the workshop will be considered during the preparation of the contract procurement.

Background

The Energy Commission is continuing to improve policy analytical tools and enhance staff capabilities. The Energy Commission has been developing a new multi-modal integrated transportation energy demand forecasting model (DynaSim). DynaSim is a software model that integrates multiple transportation sector models. Given the complexity of the model, a substantial amount of data and data processing are involved

resulting in a substantial number of data assumptions. The Energy Commission staff has a need to evaluate, collect, estimate, and pre-process input data. As is the case with all forecasting models, quality of input data has a substantial role in the quality of forecasts. The Energy Commission staff is looking to improve both data quality and data management processes and procedures, which includes evaluation of alternative proprietary or public sources of data. The contract work will develop a system which will streamline and standardize the data collection, and automate (to the extent possible) pre- and post-processing of data and the updating process.

The purpose of the contract is to hire a consultant, either an individual or company, to develop a data management system. Specifically, consultant services are needed to develop, organize and manage data collection, pre- and post-processing of data, and data acquisition efforts for DynaSim. The consultant will create a data management system that provides an organized and efficient approach to collection and processing of DynaSim data, improving data quality, and ensuring internal consistency. During the term of the contract, the consultant will ensure that Energy Commission staff is involved in the data management efforts and that ownership of the data management tasks described in this scope of work will shift to Energy Commission staff by the end of the contract term.

The DynaSim modeling framework integrates eight different transportation models/modules into a single, cohesive software tool, which encompass different segments of the transportation sector. Each specific segment of the transportation market requires unique infrastructure and/or transportation technologies. The models are:

Urban Travel – forecasts transportation energy demand required by public and mass transit travel and personal vehicle modes for travel within urban areas with mass transit infrastructure.

Intercity Travel – forecasts energy demand required by mass transit travel and private vehicle modes for long distance travel between the cities within the state's geographical boundary.

Other Bus Travel – forecasts energy demand required by other mass transit vehicles (such as school buses) within an urban and/or intercity geographical boundary.

Congestion- DynaSim includes a congestion module that applies to urban travel.

Personal Vehicle Choice – forecasts economic and automobile characteristics that affect the choices of current or potential owners of personal light duty vehicles. Vehicle types and associated fuel efficiency factors are aggregated into a county-wide vehicle stock that forecasts fuel demand based upon the types of vehicles in the state-wide stock.

Commercial Vehicle Choice – forecasts economic and automobile characteristics that affect the new vehicle choices of commercial vehicle owners. Vehicle types and associated fuel efficiency factors are aggregated into a county-wide vehicle stock that forecasts fuel demand based upon the types of vehicles in the state-wide stock.

Freight – forecasts transportation energy required for the movement of commodities and activities within California, and between California and other states and countries, for both business and personal reasons.

Aviation – forecasts transportation energy required for air travel and the movement of goods through the air within California, and between California and other states and countries, for business or personal reasons.

Additional information regarding the workshop topics are attached as Appendix A.

Written Comments

Written comments on the workshop topics must be submitted by 5:00 p.m. on June 30, 2010. Please include Staff Workshop on Transportation Data Consultant Contract Opportunity Notice in the subject line or first paragraph of your comments. Please hand deliver or mail an original copy to:

California Energy Commission
Fuels and Transportation Division, MS-41
Re: Transportation Data Consultant Contract Opportunity Notice
1516 Ninth Street
Sacramento, CA 95814-5512

The Energy Commission encourages comments by e-mail. Please include your name or organization's name in the name of the file. Those submitting comments by electronic mail should provide them in either Microsoft Word format or as a Portable Document (PDF) to [DSworkshop@energy.state.ca.us].

Participants may also provide an original and 10 copies at the beginning of the meeting.

Remote Attendance

You can participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you listen to the audio via your telephone. Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

Computer Log-on with Telephone Audio:

1. Please go to https://energy.webex.com and enter the unique meeting number: **926 193 864.**

2. When prompted, enter your name other information as directed and the meeting password: **meeting@930**

3. After you log-in, a prompt will ask for your phone number. If you wish to have WebEx call you back, enter your phone number. This will put add your name on the WebEx log so that we know who is connected and have a record of your participating by WebEx.

   If you do not wish to do that, click cancel, and go to step 4. Or, if your company uses an older switchboard-type of phone system where your line is an extension, click cancel and go to step 4.

4. If you didn't want WebEx to call you back, then call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number, which is listed in the top left area of your screen after you login via computer. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

Telephone Only (No Computer Access):

1. Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from https://energy.webex.com/energy/globalcallin.php

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239.

Date: May 20, 2010

Mail Lists: General List - opportunity

Appendix A

Consultant Tasks and Deliverables

The anticipated contract tasks and deliverables proposed to be undertaken by the consultant would be separated into three general areas; Managing Data, Data Collection and Acquisition, and Communications. The tasks and deliverables listed below are all open for discussion and modification.

Managing Data – Implementing a Data Management System Including, Processes, People and Technology

1. The consultant will be expected to gain an understanding of the DynaSim model and associated data requirements within the first two weeks of project engagement.

2. Within 45 working days, the consultant will provide an analysis of the model, data requirements, and business processes, demonstrating a thorough understanding of how the DynaSim framework functions. The analysis should include recommendations for improvement over the current state of DynaSim data. Priority shall be given where data quality is insufficient to produce defensible results, given the degree to which the model or module is sensitive to that data.

3. The analysis, described in 2 above, must also include an assessment of the DynaSim data management/data storage methodology currently employed by the Fossil Fuels Office. Recommendations for file management (i.e. naming conventions, storage folder structure) improvement should be included in the assessment.

4. Tasks 2 and 3 will culminate in an evaluation and recommendations report.

5. The consultant will implement the data management system designed from the analysis and assessment. The design of the system will be approved by the Energy Commission Project Manager prior to implementation.

6. The consultant will work with the Energy Commission staff tasked with development of future phases of DynaSim, ensuring that data management methodologies are followed for future data needs. The consultant will also make recommendations to the team with regard to potential data sources that may support future DynaSim phases.

7. The consultant will work with Energy Commission staff to ensure that changes to the data, documents, and database are tracked appropriately. This includes clearly documenting data sources and assumptions (using existing standards and using approved methods). This also includes ensuring that versioning and storage processes are followed.

8. Input data must be formatted properly prior to importing the data into DynaSim. The consultant will be responsible for ensuring that all the data is formatted appropriately for DynaSim. In addition, the consultant will recommend improved data formatting processes and methods as part of the Data Management System.

9. The consultant will assist Energy Commission staff with the management of the very large database supporting DynaSim. The consultant will not perform database administration functions and will not be tasked with set up or programming of the SQL database. The consultant will provide guidance and direction to Energy Commission staff responsible for hands on database administration.

10. The consultant will be responsible for compiling, formatting, and maintaining baseline system data. This work will include collecting data at various times. The consultant would be asked to collect data when their experience was more appropriate due to the complexity of the data, or when the Energy Commission staff was unavailable to collect the data.

Data Collection and Acquisition

1. Source Identification: The consultant will evaluate different sources of data in terms of scope, accuracy, efficiency and consistency and make a recommendation on either proceeding with existing sources or changing the data source. The consultant will ensure that the source data and any preprocessing methods are properly documented. Documentation and organized storage for easy retrieval of the information is required. All assumptions and methods that have driven the preprocessing effort must be documented.

2. Work with the DynaSim Administrators to improve the data through research activities. These activities include coordinating with Fuels and Transportation Division staff to research, develop, and create data. In addition, the consultant will scope out any contractor data acquisition work necessary to fill data gaps or improve the quality of existing data.

Communications

1. The consultant will provide training and knowledge transfer to Energy Commission staff regarding formatting, preprocessing, importing, and updating data in the system. The goal of the Energy Commission is to have the system managed and operated by Energy Commission staff within approximately 1 year.

2. Within 60 calendar days of contract start, the consultant will develop a plan for training and knowledge transfer to Energy Commission staff which will include a tasked schedule, training and information documentation, discussion of

strategies, and methods to ensure staff acquires the necessary skills to perform the work.

3. The consultant will participate in a monthly status meeting with the DynaSim Administrators and other members of the team.

4. The consultant will track and monitor all data activities and report on them to the DynaSim Administrators and Program Project Manager in a monthly status report and other documentation agreed upon by the consultant, DynaSim Administrators, and Program Project Manager.

5. The consultant will provide ad hoc status updates or respond to questions as needed to management and staff. These communication activities may include presentations to management and/or other stakeholders.

Consultant Experience and Skill Requirements

1. Must have in-depth knowledge of transportation energy markets, with emphasis on sources of transportation and/or transportation energy data, but also including policies, modeling, and forecasting.

2. DynaSim data is stored in a SQL database, and most input data is prepared using Microsoft Excel and Microsoft Access. As such, the consultant must have demonstrated experience and/or credentials for these applications. Actual database administration or database programming work is not anticipated. Experience processing large datasets for statistical analysis or simulation modeling is preferred.

3. Experience managing large databases, especially knowledge and ability to manage data in a SQL server database, is preferred.

4. The consultant must have proven organizational skills managing analytical teams. Management experience must include teams working on large data sets.

5. The consultant must have experience developing data management procedures for diverse and complex projects with large data sets.

6. The consultant must have experience reconciling and evaluating the impacts of using different data sources for policy and technical analyses.